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REMARKS/ARGUMENTS

Status of the Application

Claims 1-26 are pending in the application. Claims 1-14, 16-26 stand rejected.

Allowable Subject Matter

The Examiner has stated that Claim 15 would be allowable if written in independent form including all limitations of the base claim and any intervening claims.

Claim Rejections - 35 U.S.C. §102

Claims 1-4, 11-12, 16-17, 19-20, and 24-25 are rejected under 35 U.S.C. §102(b) as being anticipated by Primeau, II, et al., U.S. Patent No. 6,013,755 (hereinafter Primeaux '755). Primeau '755 has two broad aspects, a method for the preparation of polyurea elastomers and polyurea elastomer products comprising the reaction products of the method. The method for preparing polyurea elastomers comprises, (a) reacting an amine chain extender with dialkyl maleate or dialkyl fumarate to form an aspartic ester, (b) blending the aspartic ester with one or more polyoxyalkyleneamines to prepare a resin blend, and (c) contacting the resin blend with an isocyanate under conditions effective to form a polyurea elastomer (Col. 1, lines 41-49). The polyoxyalkyleneamines are amine-terminated polyethers (Col. 2, lines 61-63). The polyurea elastomer products are those that result from the reaction of (a) a resin blend containing one or more polyoxyalkyleneamine and an aspartic ester, and (b) an isocyante, wherein the aspartic ester is the reaction product of an amine chain extender and a dialkyl maleate or fumarate, as described above. Col. 1, lines 51-59.

The present claims present a coating composition comprising a binder consisting essentially of a polyisocyanate crosslinking agent and an isocyanate-reactive component which is one or more aspartic ester derivatives (claim 2 1, 25). This terminology expressly excludes the aspartic ester/polyoxyalkyleneamine blend of Primeau '755. The binder may also contain optional polymeric and oligomeric components and additives. Compositions 1-5 of the application (please see pages 14-15) contained aspartic ester (reaction product of methylene bis(cyclohexyl amine) and diethyl maleate (see also claim 4)), a UV light screener, a HALS stabilizer, siloxane solution, two antioxidants, a stabilizer and trimer of hexamethylene diisocyanate. There is no reaction product, or resin comprising a blend, of an aspartic ester and a polyoxyalkyleneamine. The claims reflect this composition of the binder and, as noted above, the limiting transitional phrase "consisting essentially of" excludes the resin blend.

Primeaux '755 forms a resin by reacting the aspartic ester with a polyoxyalkylene amine and then contacting the resin so formed with an isocyanate. The reaction in the present

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claims is altogether different: the aspartic ester is put in contact directly with the isocyanate to form the coating binder. This direct step is completely lacking from Primeaux '755, and the second step of that reference, forming a resin from aspartic acid and one or more polyoxyalkylene amines, is absent from the present claims.

Therefore, Primeaux '755 does not anticipate claims 1-4, 11-12, 16-17, 19-20 and 24-25. These claims are considered novel in light of the remarks and arguments set forth above. The Applicants respectfully request that the Examiner's rejection under 35 U.S.C. §102(b) be withdrawn.

Claims 1-7, 9-12, 16-17, 19-20, and 24-25 are rejected under 35 U.S.C. §102(e) as being anticipated by Primeaux, II, et al., U.S. Patent No. 6,399,736 (hereinafter Primeaux '736). The foregoing remarks addressed to Primeaux '755 apply equally to Primeaux '736. As above, Primeaux '736 is directed to a polyurea elastomer including the reaction product of (a) a pre-blend of an amine-terminated polyether and an aspartic ester, and (b) an isocyanate compound. The polyamines cited by the Examiner (Col. 2, line 64 to Col. 3, line 41) are amines that may be used to convert a dialkyl maleate or furnarate to an aspartic ester, as in Primeaux '755. The reasoning applied to Primeaux '755 applies here as well, in that the claimed composition expressly excludes the resin blend. Accordingly, Primeaux '736 does not anticipate these claims.

For these reasons, claims 1-7, 9-12, 16-17, 19-20, and 24-25 are not anticipated by either Primeaux '755 or Primeaux '736. Applicants respectfully request that the Examiner withdraw these rejections based on 35 U.S.C. §102(b).

Claim Rejections - 35 U.S.C. §103

Claims 5-7, 8, 9-10, 13, 14, 18 and 21-23 are rejected under 35 U.S.C. §103 as being unpatentable over the references cited with respect to each rejection. Claims 5-7, 8, 9-10, 13, 14 and 18 are all dependent, directly or indirectly, from claim 1. Claim 1 is novel in light of the remarks presented above in that claim 1 expressly excludes the aspartate/ether amine resin blend of the prior art. Since claim 1 is novel, its dependent claims are patentable over the §103 art cited by the Examiner. Claims 21-23, while written in independent form, incorporate the novel coating of claim 1, and therefore are patentable over the prior art cited. The following brief remarks addressing the references cited by the Examiner are included in the interests of making a complete record of Applicants' positions herein. Should the Examiner agree with Applicants position that claim 1 is novel, Applicants submit that the remarks that follow are not necessary to establish the patentability of claims 1-26.

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Claims 5-7 and 9-10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Primeaux '755 in view of Primeaux '736. The broad aspect of Primeaux '736 that is pertinent here is that concerning a polyurethane elastomer. The isocyanate-reactive compounds cited in Primeaux '736 at Col. 5, line 36 to Col. 6, line 4 may be used as a portion of component (b) of the polyurethane. As shown hereinabove, the coating binders of the present claims are novel in view of Primeaux '755. Accordingly, there would have been no motivation to combine Primeaux '736 with Primeaux '755, since the coating binder of the present claims is patentably distinct from both. It would therefore not have been obvious that adding hydroxyfunctional polymers or oligomers would have imparted desired properties to a coating containing an altogether different binder.

Thus, Applicants believe that claims 5-7 and 9-10 are patentable, and respectfully request that this rejection be withdrawn.

Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Primeau '736 in view of Huynh-Ba (US2002/0132934). In Huynh-Ba, the polyhydroxyl acrylate is a compound, component (A), comprising hydroxyl-containing acrylic polymer and polyhydroxyl tertiary amine (please see [0009]). The polyhydroxyl tertiary amine in (A) is present as a mixture with the acrylic polymer in solution in the liquid carrier ([0027]). There is no such mixture of a tertiary amine with an acrylic polymer in the present claims to achieve the desired level of hydroxyl functionality. Therefore, it is not seen how the Applicants' inclusion of hydroxy-functional acrylates in claim 8 is made obvious by component A in Huyn-Ba. The mixture of Huyhn-Ba is altogether different and does not teach or suggest that a hydroxy-functional acrylic polymer alone is sufficient to achieve the desired rapid-drying properties of the coating.

Claim 13 is rejected under 35 U.S.C. §103(a) as being unpatentable over either one of Primeaux '755 or '736 in view of Zwiener, et al., U.S. Patent No. 5,126,170. Applicants' respectfully submit that if claim 1 is novel, as demonstrated above, then claim 13, which depends directly from claim 1, would be valid, without further argument on the merits of the Examiner's 103(a) rejection.

Claim 14 is rejected under 35 U.S.C. §103(a) as being unpatentable over either one of Primeaux '755 or '736 in view of in view of Schmitt, et al., U.S. Patent No. 5,652,301. Applicants reiterate their position that the coating binders of the present claims are patentably distinct from the Primeaux references. Schmitt at Col. 7, lines 16-31 and Col. 8, lines 12-39 and Col. 8, line 66 to Col. 9, line 23 calls for certain functional groups to be chemically incorporated into the polyurea. Claim 14 calls for a urethane oligomer that is the reaction

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product of a polyisocyanate and a monohydric alcohol and a hydroxy functional carboxylic acid. It is not seen how such reaction products can achieve the results required in Schmitt. As noted in a prior submission, Schmitt does not teach or suggest the addition of an arnine to produce a water-stable polyurethane.

Claims 21-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over either of Primeaux '755 or '736 in view of Cai, et al., U.S. Patent No. 5,591,807. The coating of the present claims lacks both the polyimine and polyanhydride components of Cai. Therefore, it would not have been obvious that a coating of different composition could be used in multiple layers as suggested. In any event, as submitted previously by Applicants, should claim 1 be novel as Applicants believe, then claims 21-23 should be allowable.

Finally, claim 18 is rejected under 35 U.S.C. §103(a) as being unpatentable over either of Primeaux II '755 or '736 in view of Wolf. Claim 18 depends from claim 1. Applicants respectfully reiterate their position that neither of the Primeaux references apply, for reasons presented above. Wolf says only that secondary antioxidants include phosphites, phosphonites, thioethers, and metal salts. (Section 2.2(2)). In Section 2.3, Wolf describes the mechanism of thermooxidative degradation, which is defined as an autocatalytic, free-radical chain reaction (initiation + propagation + branching + termination stages). Peroxy radicals ROO• participate in intermolecular and intramolecular chain propagation reactions to form new radical sites and hydroperoxides. The extent of thermooxidative degradation in many polymers can be determined by the concentration peroxy radicals, hydroperoxide groups, and carbonyl groups. This reference does not render obvious the class of antioxidants claimed. Accordingly, the Applicants respectfully request the Examiner to withdraw this rejection.

Summary

In view of the foregoing remarks, Applicants respectfully submit that a complete response to the Final Office Action mailed November 2, 2005 has been made. Applicants believe that this application stands in condition for allowance with withdrawal of all grounds of rejection. A Notice of Allowance is respectfully solicited. If the Examiner has questions regarding the application or the contents of this response, the Examiner is invited to contact the Applicants' representative at the telephone number below.

The Applicants believe that no fee is due with this submission. The time for reply to the Final Office Action of November 2, 2005 would have expired on Monday January 2, 2006, which was a Federal holiday in the District of Columbia. Pursuant to 37 C.F.R. §1.7, the time for taking action is extended by operation of law to January 3, 2006. Should a fee

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be due that is not accounted for herein, please charge any such additional fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,

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